

Written Testimony
Energy and Technology Committee

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Governor's Bill No. 882, RB No. 952, RB No. 6523

Presented by:

Julie Smith-Galvin
Owner and Principal
JSG Communications
c/o Greentown Labs
444 Somerville Avenue
Somerville, MA 02143
781-606-1233

My name is Julie Smith-Galvin, and I am the founder and CEO of JSG Communications, a niche strategic communications firm that provides services exclusively in the energy and environment space. This is a business I started after spending 20 years at two of the largest renewable power companies in the world, Enel Green Power and Brookfield Renewables, each of which conducted business in Connecticut. Since forming JSG Communications over the last five years, I have had several clients working hard to advance clean energy and climate resiliency across New England, including Connecticut. These clients range from organizations and companies with interests in offshore wind, solar, energy storage, transmission improvements and hydropower. Gravity Renewables, a hydropower company which owns three Connecticut projects is a client. I, like many of you, recognize that the climate challenge is large and urgent. It will take all of these technologies and many more, some which have not yet been conceived, to protect our planet.

In addition to my role as a business owner, I am also an elected Town Councilor in a mid-size town north of Boston. As an elected official, I am keenly aware of the role public officials and policy makers play in driving any major issues, and sustainability is no exception. All the technology advances in the world will be of little use without policies that facilitate their adoption and retention and facilitate action on the part of businesses, municipalities and consumers. I recently co-authored a paper for the [Massachusetts Municipal Association that outlines the critical role municipal leaders play fighting climate change through informed policies, pilots and collaboration.](#)

With this context, I am here today to emphasize the value of a single technology, hydropower. In doing so, I am in no way discounting the value of other technologies that are critical to decarbonizing our electricity system. Instead, I think it is important to highlight that, unlike these other technologies, hydropower is already reliably generating climate-friendly power across Connecticut. They are quietly woven into rural and small towns, providing recreational opportunities, reservoir management, jobs, property taxes and a host of other local social and economic benefits, in addition to clean power. These hydropower projects, particularly those under 3 MW (small hydropower), should not be taken for granted. Hydropower is the original renewable resource, which makes up an important part of New England's renewable baseline.

As the only federally regulated electricity resource, many hydropower facilities are coming up for relicensing by the Federal Energy Regulatory Commission, which takes into account inputs from state and federal resource agencies. As hydropower facilities proceed through the relicensing process, it will be important for environmental requirements to be balanced with fair economic valuation. Put more simply, the costs of regulatory and environmental requirements are increasingly exceeding the value of the power generating, putting hydropower's future at risk. Hydropower operators understand that their technology has impacts and that investments are necessary to protect the river ecosystem. However, to remain viable providers of baseline climate-friendly hydropower, these investments must be recognized and socialized into policy.

In this regard Connecticut is behind its neighbors and the country. Massachusetts, Maine, New York, Rhode Island, Vermont and New Hampshire have a combined 11 programs that specifically support small hydropower ranging from grant programs to hydropower tariffs to virtual net metering carveouts. In contrast, Connecticut has no hydro-specific programs. Furthermore, a national initiative was announced in 2020, whereby participants from the hydropower industry and conservation/environmental community are collaborating to (1) the important role of hydropower plays in decarbonizing the nation's electricity system and (2) the compounding factors a changing climate, habitat loss and alterations of river processes has on America's waterways. This collaboration, referred to as "Uncommon Dialogue" is an opportunity for different stakeholders to come together and develop hydropower solutions that meet both climate and river conservation goals. Connecticut has a unique opportunity to not only catch up with its neighbors, but to also be a national leader in optimizing hydropower solutions.

Specifically, advancement of hydropower-specific language in Bills 882, 952 and 6523 would provide measures to ensure the future of small hydro in the State. For example:

- Bill 882 seeks to establish a goal of 0% carbon emissions by 2040. In order to achieve this goal, the proposal recognizes power purchase agreements as vehicles to secure the products and benefits of renewable energy resources. Reaching a 0% goal will be facilitated by protecting the existing base of renewable energy assets, including in-State hydropower from loss through attrition.

- Bill 952 seeks to expand the existing Virtual Net Metering program and create a designation within the program which allocates benefits to school districts located in the State's most underserved communities. Small hydropower is well positioned to provide these benefits immediately. In order to accomplish this, the bill should include language specifically recognizing small hydro's unique attributes.
- Bill 6523 also seeks to expand the existing Virtual Net Metering program and create a designation to allocate benefits to manufacturing facilities located in distressed municipalities. Again, small hydro is well positioned to provide these benefits immediately.

Below is specific language being suggested to expand the existing Virtual Net Metering program to create a place for existing small hydropower. I ask for your review of this language and consideration of adopting it and other measures that will recognize and preserve hydropower's important climate role.

**Attachment to Testimony 3-3-21:
(Proposed wording is underlined)**

**Connecticut General Statutes
CHAPTER 283*
TELEPHONE, GAS, POWER AND WATER COMPANIES**

Sec. 16-244u. Virtual net metering. (a) As used in this section:

(1) “Beneficial account” means an in-state retail end user of an electric distribution company designated by a customer host or an agricultural customer host in such electric distribution company's service area to receive virtual net metering credits from a virtual net metering facility or an agricultural virtual net metering facility;

(2) “Customer host” means an in-state retail end user of an electric distribution company that owns, leases or enters into a long-term contract for a virtual net metering facility and participates in virtual net metering;

(3) “Agricultural customer host” means an in-state retail end user of an electric distribution company that uses electricity for the purpose of agriculture, as defined in subsection (q) of section 1-1, owns, leases or enters into a long-term contract for an agricultural virtual net metering facility and participates in agricultural virtual net metering;

(4) (A) “Unassigned virtual net metering credit” means, in any given electric distribution company monthly billing period, a virtual net metering credit that remains after both the customer host and its beneficial accounts have been billed for zero kilowatt hours related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings through virtual net metering;

(B) “Unassigned agricultural virtual net metering credit” means, in any given electric distribution company monthly billing period, an agricultural virtual net metering credit that remains after both the agricultural customer host and its beneficial accounts have been billed for zero kilowatt hours related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings through agricultural virtual net metering;

(5) “Virtual net metering” means the process of combining the electric meter readings and billings, including any virtual net metering credits, for a municipal, state or

agricultural customer host and a beneficial account related to such customer host's account through an electric distribution company billing process related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings;

(6) “Small Hydroelectric Virtual Net Metering” means the process of combining the electric meter readings and billings, including any virtual net metering credits, for an Eligible Hydroelectric Virtual Net Metering Facility customer host and a beneficial account related to such customer host's account through an electric distribution company billing process related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings. Electric distribution companies shall not provide Small Hydroelectric Virtual Net Metering services to a customer host who is an electric distribution company, aggregator, retail energy supplier, or energy broker;

(7) “Virtual net metering credit” means a credit equal to the retail cost per kilowatt hour the customer host may have otherwise been charged for each kilowatt hour produced by a virtual net metering facility that exceeds the total amount of kilowatt hours used during an electric distribution company monthly billing period; and

(78) (A) “Virtual net metering facility” means a Class I renewable energy source or a Class III source that: (i) Is served by an electric distribution company, owned, leased or subject to a long-term contract by a customer host and serves the electricity needs of the customer host and its beneficial accounts; (ii) is within the same electric distribution company service territory as the customer host and its beneficial accounts; and (iii) has a nameplate capacity rating of three megawatts or less; and

(B) “Agricultural virtual net metering facility” means a Class I renewable energy source that is operated as part of a business for the purpose of agriculture, as defined in subsection (q) of section 1-1, that: (i) Is served by an electric distribution company on land owned or controlled by an agricultural customer host and serves the electricity needs of the agricultural customer host and its beneficial accounts; (ii) is within the same electric distribution company service territory as the agricultural customer host and its beneficial accounts; and (iii) has a nameplate capacity rating of three megawatts or less; and

(8)(C) “Eligible hydroelectric virtual net metering facility” means an existing hydroelectric facility that is (i) located within the State of Connecticut, (ii) a run-of-the-river, or run-of-release hydropower facility, and (iii) has a nameplate capacity of three megawatts or less.

(9) “Declining percentage of the transmission and distribution charges” means, during the period commencing on the first day of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and ending after one year, eighty per cent of the transmission and distribution charges, during the period commencing at the beginning of the second year of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and ending after one year, sixty per cent of the transmission and distribution charges, and commencing at the beginning of the third year of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and for each year thereafter, forty per cent of the transmission and distribution charges.

(b) Each electric distribution company shall provide virtual net metering to its municipal, state or agricultural customer hosts and shall make any necessary interconnections for a virtual net metering facility or an agricultural virtual net metering facility. Upon request by a municipal, state or agricultural customer host to implement the provisions of this section, an electric distribution company shall install metering equipment, if necessary. If a virtual net metering facility is already interconnected to the electric distribution company’s system, the existing interconnection shall serve this purpose without the need for modification, study or technical review, excepting necessary changes to the facility’s metering. For each municipal, state or agricultural customer host, such metering equipment shall (1) measure electricity consumed from the electric distribution company's facilities; (2) deduct the amount of electricity produced but not consumed; and (3) register, for each monthly billing period, the net amount of electricity produced and, if applicable, consumed. If, in a given monthly billing period, a municipal, state or agricultural customer host supplies more electricity to the electric distribution system than the electric distribution company delivers to the municipal, state or agricultural customer host, the electric distribution company shall bill the municipal, state or agricultural customer host for zero kilowatt hours of generation and assign a virtual net metering credit to the municipal, state or agricultural customer host's beneficial accounts for the next monthly billing period. Such credit shall be applied against the generation service component and a declining percentage of the transmission and distribution charges billed to the beneficial accounts. Such credit shall be allocated among such accounts in proportion to their consumption for the previous twelve billing periods.

(c) An electric distribution company shall carry forward any unassigned virtual net metering credits earned by the municipal or state customer host or unassigned agricultural virtual net metering credits earned by the agricultural customer host from one monthly billing period to the next until the end of the calendar year. At the end of each calendar year, the electric distribution company shall compensate the municipal, state or agricultural customer host for any unassigned virtual net metering generation credits at the rate the electric distribution company pays for power procured to supply

standard service customers pursuant to section 16-244c and a declining percentage of the transmission and distribution charges.

(d) For facilities participating in the small hydroelectric virtual net metering program, the virtual net metering facility owner shall have the option for the electric distribution company to purchase virtual net metering credits from the customer host, rather than allocating such credits. The virtual net metering facility owner must provide written notice to the electric distribution company of its election to either allocate or have virtual net metering credits purchased by the electric distribution company. For virtual net metering credits purchased under this provision Section 8d, the electric distribution company will make payment by issuing a check to the virtual net metering facility owner each billing period, unless otherwise agreed in writing.

(e) At least sixty days before a municipal or state customer host's virtual net metering facility or an agricultural customer host's agricultural virtual net metering facility becomes operational, the municipal, state or agricultural customer host shall provide written notice to the electric distribution company of its beneficial accounts. The municipal, state or agricultural customer host may change its list of beneficial accounts not more than once annually by providing another sixty days' written notice. The municipal or state customer host shall not designate more than five beneficial accounts, except that such customer host may designate up to five additional nonstate or municipal beneficial accounts, provided such accounts are critical facilities, as defined in subdivision (2) of subsection (a) of section 16-243y, and connected to a microgrid. The agricultural customer host shall not designate more than ten beneficial accounts each of which shall (1) use electricity for the purpose of agriculture, as defined in subsection (q) of section 1-1, (2) be a municipality, or (3) be a noncommercial critical facility, as defined in subdivision (2) of subsection (a) of section 16-243y.

~~(ef)~~ (1) On or before October 1, 2013, the Public Utilities Regulatory Authority shall conduct a proceeding to develop the administrative processes and program specifications, including, but not limited to, a cap of ten million dollars per year apportioned to each electric distribution company based on consumer load, for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section, provided the municipal, state and agricultural customer hosts, each in the aggregate, and the designated beneficial accounts of such customer hosts, shall receive not more than forty per cent of the dollar amount established pursuant to this subdivision.

(2) In addition to the provisions of subdivision (1) of this subsection, the authority shall authorize six million dollars per year for municipal customer hosts, apportioned to each electric distribution company based on consumer load, for credits provided to

beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section where such municipal customer hosts have: (A) Submitted an interconnection application to an electric distribution company on or before April 13, 2016, and (B) submitted a virtual net metering application to an electric distribution company on or before April 13, 2016.

(3) In addition to the provisions of subdivisions (1) and (2) of this subsection, the authority shall authorize, apportioned to each electric distribution company based on consumer load for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section three million dollars per year for agricultural customer hosts, provided each agricultural customer host utilizes a virtual net metering facility that is an anaerobic digestion Class I renewable energy source and not less than fifty per cent of the dollar amount for such agricultural customer hosts established under this subparagraph is utilized by anaerobic digestion facilities located on dairy farms that complement such farms' nutrient management plans, as certified by the Department of Agriculture, and that have a goal of utilizing one hundred per cent of the manure generated on such farm.

(4) In addition to the provisions of subdivision (1), (2) and (3) of this subsection, the authority shall authorize up to twenty five (25) cumulative megawatts of eligible small hydroelectric virtual net metering capacity to participate in the program. Such eligible hydroelectric virtual net metering facilities shall be included in the small hydroelectric virtual net metering cap and excluded from other virtual net metering program cost cap limitations. Small hydroelectric virtual net metering shall survive until the cumulative megawatt capacity of eligible hydroelectric facilities, defined in this section, is reached. The authority shall determine an appropriate and proportionate method of allocating costs of eligible hydropower facilities to ensure that the costs of the program are shared collectively among all ratepayers of the electric distribution companies.

(f) On or before January 1, 2013, and annually thereafter, each electric distribution company shall report to the authority on the cost of its virtual net metering program pursuant to this section and the authority shall combine such information and report it annually, in accordance with the provisions of section 11-4a, to the joint standing committee of the General Assembly having cognizance of matters relating to energy.

(g) A municipal, state, public housing authority, low-income customers, moderate-income customers, low-income service organizations, or agricultural customer host shall be allowed to aggregate all electric meters that are billable to such customer host.

(h) Where a virtual net metering facility or agricultural virtual net metering facility requires a permit from the Department of Energy and Environmental Protection under chapter 446c or chapter 446d and the municipal, state or agricultural customer host has

submitted a virtual net metering application to the electric distribution company for such virtual net metering facility or agricultural virtual net metering facility on or before December 1, 2015, and the electric distribution company has accepted such virtual net metering application, such municipal, state or agricultural customer host shall have eighteen months from the date of the issuance of the final permit from the Department of Energy and Environmental Protection to cause such virtual net metering facility or agricultural virtual net metering facility to become operational.